18 Pot Run Checklist

Person on Shift: _____   **Time / Date (Move Pots IN/OUT):** _____

!!!! IF AT ANY TIME THERE IS A PROBLEM, TURN OFF ALL CONTROL LINES !!!!

SETUP

- ❑ **Login to elogbook**
- ❑ **Read:** ____ **FPD Runplan on the web**

     ____ **Last 8 Days Entries to FPD elogbook   (Entries from Last Pot Insertion at a Minimum)**

          [open in web browser, unselect INCLUDE_ALL, select FPD, change hours to days]

     ____ **FPD Issues (http://d0server1.fnal.gov/users/strang/web/fpd/documents/FPDIssues.txt)**
- ❑ **Be Familiar with Emergency Procedures to use during Pot Motion (see online checklist)**
- ❑ **Verify Software is Running: ___Pot Motion, ___HV, ___Rate Watcher, ___SES alarm display,**

     ___Rack Environment Alarm Monitor, ____ A/S on
- ❑ **Verify that ACNET is Setup Properly: ___FTP, ___C72, ___D44, ___Lumberjack.**
- ❑ **Verify there are No Alarms in the SES display, if there are, attempt to clear them.**
- ❑ **Look over FPD Examine Plots, make a screen capture of anything unusual and place in elogbook**

Pot Insertion (FPD Expert):

- ❑ **Ramp HV to 100 % for All L0 Trigger Tubes (if rates are not updating verify trigger is using generator signal)**
- ❑ **Create screen capture of D44 lumberjack screen showing normal rates for last store and put in elogbook.**
- ❑ **Create a screen capture of the FPD Runstate page (http://www-d0online.fnal.gov/fpd_run_state/)**

     If this page isn't accurate, make copies of the Beams Division notify webpage ____,

     C72 page (halo rates)_____ and FPDGui (singles rates)_____. Notify Vladimir Sirotenko _____
- ❑ **Have Shift Captain Notify MCR and CDF that we are going to insert pots**
- ❑ **Verify with Shift Captain that the Beam Spot at D0 has not significantly changed**
- ❑ **Open expert mode of FPDGui and initialize halo viewer**

- ❑ **Setup camera to display dipole motors.**
- ❑ **Setup D44 to display rates for dipole pots.**
- ❑ **Turn on drivers in Pot Motion Software for dipole castle**
- ❑ **Turn on A side control line.**
- ❑ **Insert dipole pots to closest possible position using provided insertion tables. . Stop if CDF AHALO more than triples. Keep track of final position _____ and reason for stopping _____ for Elogbook.**
- ❑ **Turn off dipole drivers**
- ❑ **Ramp Dipole MAPMT HVs to 100%. Time _____ (Keep track of when this is done for logbook)**

- ❑ **Setup Camera to Display A1 and A2 vertical / horizontal motors.**
- ❑ **Setup D44 to display A Vertical Rates**
- ❑ **Calculate a 60% Increase of Starting D0 PHALO rate for stopping condition _____ (6 kHz Max)**
- ❑ **Turn on Drivers in Pot Motion Software for A1 and A2 castles**
- ❑ **Insert A-side vertical pots to closest possible position using provided insertion tables. Stop if CDF AHALO more than triples. Keep track of final position _____ and reason for stopping _____ for Elogbook.**

- ❑ **Ramp AHorizontal MAPMT HVs to 100%. Time _____ (Keep track of when this is done for logbook)**

- ❑ **Setup D44 to display A Horizontal rates**
- ❑ **Calculate 100% increase of starting D0 PHALO rate for stopping condition _____ (6 kHz max)**
- ❑ **Insert A-side horizontal pots to closest possible position using provided insertion tables.**

  Stop if CDF AHALO more than triples

  Keep track of final position _____ and reason for stopping _____ for elogbook.
- ❑ **Turn off A1 and A2 drivers**
- ❑ **Turn off A side control line**
- ❑ **Ramp AHorizontal MAPMT HV to 100%. Time _____ (Keep track of when this is done for logbook)**
- ❑ **Iris off A1 and A2 cameras**

- ❑ **Setup camera to display P1 and P2 vertical / horizontal motors.**
- ❑ **Setup D44 to display P vertical rates**
- ❑ **Calculate a 60% increase of starting D0 AHALO rate for stopping condition _____ (2 kHz max)**
- ❑ **Turn on drivers in Pot Motion Software for P1 and P2**
- ❑ **Turn on P side control line.**
- ❑ **Insert P-side vertical pots to closest possible position using provided insertion tables.**

  Keep track of final position _____ and reason for stopping _____ for logbook.
- ❑ **Ramp PVertical MAPMT HV to 100%. Time _____ (Keep track of when this is done for logbook)**

- ❑ **Setup D44 to display P Horizontal rates**
- ❑ **Calculate 100% increase of starting D0 AHALO rate for stopping condition _____ (2kHz max)**
- ❑ **Insert P-side horizontal pots to closest possible position using provided insertion tables.**

  Keep track of final position _____ and reason for stopping _____ for logbook.
- ❑ **Turn off P1 and P2 drivers**
- ❑ **Turn off P side control line**
- ❑ **Ramp PHorizontal MAPMT HV to 100%. Time _____ (Keep track of when this is done for logbook)**

- ❑ **Close Expert mode of FPDGui.**
- ❑ **Iris off the P1 and P2 cameras**
- ❑ **Setup D44 to display D2I, A2U, P2U, P1I Scalars (upper limits to 400000)**
- ❑ **Make Screen Capture of D44 lumberjack plot and put in Elogbook.**
- ❑ **Stop and restart the examine program**
- ❑ **Record Current D0 Run Number: _____, Final Pot Positions and time MAPMT HVs were switched on in Elogbook using the "pot info table" (include any other observation information in elogbook).**
- ❑ **Notify shift captain that pots have been inserted and inform them of tasks for which they are responsible:**
  - o <u>Monitor Rates in Lumberjack</u> (every approx 30 min.) These should be decaying with time. If spikes check FPD HV. If sustained increase or numerous spikes (or anything else strange) page FPD expert. Gradual Oscillations are OK
  - o <u>Monitor Alarms</u>: Page expert if there are Major Alarms in SES display. Page expert if any Minor LVPS or HV Alarms.
  - o <u>Beam Rescrape</u>: For MINOR RESCRAPE, do nothing special. Keep an eye on rates and look for HV trips. IF MAJOR RESCRAPE Ramp down BOTH MAPMT AND TRIGGER HV (ramp back up to 100% when done).

POTS HOME (SHIFT CAPTAIN): Name of Person Removing Pots_____ Time _____

At 15 minute EOS warning (or after loss of beam) - Put pots into Full Standby:

- ❑ **Turn HV to MAPMT Tubes to Standby (In HVGui, select MAPMT tab then "Set HV" ->click on "Standby" -> press ramp button – do not lock channels)**

- ❑ **Turn on A side and P side control lines located above FPD console. (Red lights will come on. You will see a major alarm)**

- ❑ **Issue command to return pots to home: use "Pots Home" -> click on "Init" (in main FPDGui screen).**

- ❑ **Verify that all pots are actually moving home before doing anything else (all bars yellow, sliders moving left, LVDT values getting smaller). If not, turn off control lines and call FPD expert immediately.**

- ❑ **Check for any alarms (other than alarm caused by turning on control line)**

- ❑ **Verify all pots at home (drivers will turn off and all bars will turn blue in FPDGui).**

- ❑ **TURN OFF ALL CONTROL LINES (located above FPD console). Red lights will turn off. Major alarm will clear.**

- ❑ **Turn HV to Trigger tubes to standby. (In HVGui, select Trigger tab then select "Set HV" ->click on "Standby" -> press ramp button – do not lock channels)**

- ❑ **Record current D0 Run Number: _____in Elogbook.**